

[0149] Referring to FIG. 25, a relation is shown by the solid line between an angle of rotation of joint 51 and pressure applied to switch 46. This pressure can be digitized based on a predetermined threshold to obtain the relation represented by the broken line and thus the state of switch 46 (ON state or OFF state) can be determined. Referring to FIG. 26, switch 46 further includes a circuit for shaping the signal represented by the broken line in FIG. 25 and accordingly outputs a signal which becomes ON state when switch 46 is at an angle ranging from 200° to 360°. This circuit provides an ON output when the rotational angle of joint 51 changes from an angle smaller than 200° to an angle greater than 200°, which corresponds to rise of the signal represented by the broken line in FIG. 25 and provides an OFF output when the rotational angle of joint 51 changes from an angle greater than 200° to an angle smaller than 200°, which corresponds to fall of the signal represented by the broken line in FIG. 25. Such a circuit can easily be constructed by a well-known flip-flop circuit.

[0150] First Variation of Page Turn Instruction Unit 45

[0151] Referring to FIG. 27, a page turn instruction unit 45 may be provided in a region corresponding to approximately one-fourth at the bottom of flat displays 4A and 4B.

[0152] Second Variation of Page Turn Instruction Unit 45

[0153] Referring to FIG. 28, a page turn instruction unit 45 may be provided in regions on both sides of flat displays 4A and 4B and triangular regions similar to those in FIG. 23.

[0154] The display device as described above has flat displays 4A and 4B which can be opened freely by a user at an angle ranging from 0° to 360°. The user can thus watch flat displays 4A and 4B even if the area occupied by the display device is decreased. In this way, a display device superior in portability can be provided.

[0155] In addition, this display device has flat displays 4A and 4B which can be folded back to back. A resultant advantage is that the user can support the display device in one hand even if flat displays 4A and 4B have a large display area.

[0156] Further, this display device having flat displays 4A and 4B folded back to back allows only one of the flat displays 4A and 4B to give display and the other display 4A or 4B not to give display. Consequently, page data is never glanced furtively by others even in the crowd in a railroad car, for example. Accordingly, a display device superior in prevention of information leakage can be provided. There is also an effect in reduction of power consumption.

[0157] Further, page turn instruction units 45A and 45B are arranged at locations corresponding to the home position of a finger when the display device is held in one hand. The user can thus turn a page of the display device with one hand.

[0158] Page turn instruction units 45A and 45B are arranged symmetrically. Therefore, the user can turn a page conveniently whether the user holds the display device in right hand or left hand. In addition, whether the user is right-handed or left-handed, the user can similarly turn a page conveniently.

[0159] Sixth Embodiment

[0160] Referring to FIG. 29, a display device according to the sixth embodiment includes a memory 3, a flat display 4, first and second switches 76A and 76B for detecting the degree of opening (angle of rotation) of flat display 4, first and second switch pressers 77A and 77B serving to press the first and second switches 76A and 76B respectively, a display control unit 72 for controlling reading of image information, character information and the like stored in memory 3 and controlling whether flat display 4 gives display or not, and a page turn instruction unit 45.

[0161] Referring to FIG. 30, the first switch presser 77A is provided at an angle of rotation of approximately 0° of joint 51 in FIG. 19. Referring to FIG. 31A, the first switch 76A changes to ON state when the rotational angle of joint 51 exceeds 0°.

[0162] The second switch presser 77B and the second switch 76B are structured similarly to switch presser 47 and switch 46 described in conjunction with FIG. 24. Therefore, the description of these components is not repeated here. Referring to FIG. 31B, the second switch 76B becomes ON state when the rotational angle of joint 51 is in the range from 200° to 360°.

[0163] Referring to FIG. 32, display control unit 72 receives outputs of the first and second switches 76A and 76B to control display/non-display of flat displays 4A and 4B. When both of the first and second switches 76A and 76B are in the ON state, that is, the rotational angle of joint 51 is 200° to 360°, display control unit 72 causes flat display 4A not to give display and causes flat display 4B to give display. When the first switch 76A is in the ON state and the second switch 76B is in the OFF state, that is, the rotational angle of joint 51 is 0° to 200°, display control unit 72 allows both of the flat displays 4A and 4B to provide display. When the first switch 76A is in the OFF state, that is, flat display 4 is closed, display control unit 72 causes both of the flat displays 4A and 4B not to provide display.

[0164] The display device as heretofore described can be effective similarly to the display device of the fifth embodiment.

[0165] Seventh Embodiment

[0166] Referring to FIG. 33, a display device according to the seventh embodiment includes a memory 3, a flat display 4, a switch 46, first and second switch pressers 77A and 77B, and a page turn instruction unit 45.

[0167] Referring to FIG. 34, the first and second switch pressers 77A and 77B are provided respectively at the rotational angles of approximately 0° and 200° of a joint 51. Switch 46 provides outputs as shown in FIGS. 31A and 31B. Thus, display control unit 82 controls display/non-display of flat displays 4A and 4B similarly to display control unit 72 of the display device according to the sixth embodiment described in conjunction with FIG. 32.

[0168] The display device as described above can be effective similarly to the display device of the fifth embodiment.

[0169] Eighth Embodiment

[0170] Referring to FIG. 35, a display device according to the eighth embodiment includes a memory 3, a flat display